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ABSTRACT

The demonstration project described was designed to demonstrate the value of teaching modern mobility techniques to legally blind public school students and other vocational rehabilitation clients beyond school age. Twenty-four of the 40 persons receiving intensive mobility training were considered rehabilitated during the project. It is noted that the project probably influenced the school systems involved (Montgomery and Prince George's Counties, Maryland) in their decisions to employ mobility specialists for blind students, and that the Maryland Division of Vocational Rehabilitation also incorporated the position of mobility instructor in its program of services to the blind. Several typical case summaries are presented as examples of the work accomplished in the project. It is concluded that, while no really new or unusually significant results emerged from the study, the recognition and acceptance of mobility as an area needing special attention constitutes a worthwhile achievement. (Author/KW)

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FINAL REPORT

A MOBILITY PROJECT WITH BLIND PUBLIC SCHOOL STUDENTS AND OTHER SELECTED REHABILITATION CLIENTS

PROJECT NO. RD-1843-S

DIVISION OF VOCATIONAL REHABILITATION

MARYLAND STATE DEPARTMENT OF EDUCATION

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PROJECT NO. RD-1843-S

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ABSTRACT

This project was designed to demonstrate the value of teaching modern mobility techniques to legally blind public school students and other vocational rehabilitation clients beyond school age. The setting for the project was the Maryland suburbs of the District of Columbia. The project made it possible to employ a specialist in the area of mobility for the first time. The need for a mobility specialist has now been recognized and provided for by both the agency conducting the study and the two public school systems involved in the project.

Approximately one-third of those receiving training were students, although they constituted nearly 50% of the people who received intensive training. Despite the fact that students were given intensive training within the school or between home and bus stop, they had little opportunity to adjust to public transportation since transportation was furnished by the counties. The lack of cross country public transportation and of feeder lines also limited the range of mobility experience for clients beyond school age. An encouraging result was that 24 of the 40 persons receiving intensive mobility training were closed as rehabilitated during the project. Others have since been closed or are still in the rehabilitation process. During the course of the project both county school systems employed a mobility specialist to work with their blind students. The Maryland Division of Vocational Rehabilitation has also incorporated the position of mobility instructor in its program of services to the blind. While no really new or unusually significant results emerged from this study, it is felt that the recognition and acceptance of mobility as an area needing special attention constitutes a worthwhile achievement.

SIGNIFICANT FINDINGS

1. Despite considerable time and effort expended on most of the school cases involved in the project, it was felt students did not achieve maximum potential in mobility because they were provided with transportation to and from school. In view of this, follow-up sessions have been required for those students who are going on to college, or who will be going directly into vocational training or employment.
2. It was found that most students resisted carrying the cane in and about the school. Observation strongly suggests that this was an attitude concerned with peer acceptance.
3. With partially sighted clients who do not need the aid of the cane, the primary service to be rendered is one of counseling to help the individual achieve a realistic understanding of his limitations. While pointing out limitations, the instructor at the same time can help the client gain confidence in travel. Beyond this, the most valuable service to such individuals is concerned with orientation to bus and travel routes in reaching training or employment sites.
4. In several cases it was observed that the presence and availability of the mobility instructor is a factor in allaying the fears of employers concerning prospective blind employees.
5. By having a mobility specialist as a member of the rehabilitation team, it was concluded that other rehabilitation services can be expedited, and made more effective. Over a period of time the specialist becomes conversant with the mechanics of the rehabilitation process and can interpret to clients, as well as to agencies, the rules, regulations and philosophy of the rehabilitation program.

6. Although this project was conducted in the populous suburbs of a large metropolitan area, the lack of useable public transportation and the lack of sidewalks or well-defined paths of travel in many areas precluded success with cane travel for a number of persons. In such cases the use of a dog guide might well have been considered. As a matter of fact, some of these cases have since been reviewed with this in mind.

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STATEMENT OF THE PROBLEM

Prior to the initiation of this project, the Maryland Division of Vocational Rehabilitation offered a variety of services to the blind, and employed certain special personnel for this purpose. A review of case records indicated that independence in travel was a prime factor in the vocational success of those persons who had been rehabilitated in competitive business and industry, in the professions, and even in sheltered employment.

For many years the Division relied on a home teaching program for the blind for adjustment services including orientation and mobility. Reasonable success was achieved in many cases with the services, but it was noted that agencies throughout the country were employing specialists for the mobility phase of adjustment. Also, emerging standards for this special area of training stipulated that such specialists should be fully sighted.

While continuing to employ visually handicapped home teachers to some degree for orientation and mobility, the Maryland Division of Vocational Rehabilitation began to use various rehabilitation centers where accepted programs in mobility were offered. For several reasons, however, only a limited number of cases could be sent to rehabilitation centers

out-of-state, and we recognized the need to employ specially trained mobility instructors who were sighted in order to conform with standards being adopted by other public and private agencies, The American Association of Workers for the Blind and the National Accreditation Council.

Therefore, in order to establish and demonstrate the need for special mobility instructors and to explore the feasibility of mobility services with blind students in public schools, this project was conceived.

TYPE OF PROJECT

This was a selected demonstration project showing systematic teaching of mobility with blind persons in Prince George's and Montgomery Counties, Maryland which are adjacent to Washington, D. C. The purpose was to serve certain selected cases of persons in the rehabilitation caseload who were beyond school age, as well as a number of blind students in the public schools of the two counties.

It was noted that while many of the students at the Maryland School for the Blind were receiving mobility instruction, this was not true of those attending public schools. More than 150 legally blind students were enrolled in the public schools statewide, with most of them in Prince George's and Montgomery Counties. It was felt that such training would not only assist the student in his school situation, but would expedite his rehabilitation program when he had completed high school.

OBJECTIVES OF THE DEMONSTRATION PROJECT

General

1. To emphasize the importance of mobility to blind persons as a means of achieving greater capability for self fulfillment and rehabilitation.
2. To establish in Prince George's and Montgomery Counties - and subsequently elsewhere in Maryland - a program of teaching the proven mobility skills which were developed at Valley Forge Hospital, Hines Veterans Administration Hospital, Industrial Home for the Blind, and elsewhere.
3. To make such services available to blind high school students and to certain other candidates for rehabilitation services with whom mobility is a particular problem, and for whom such services are not now available according to the standards developed by the aforementioned training facilities.

Specific

1. Through regular and systematic teaching by a competent instructor, show blind persons and their families that a high degree of independence in travel can be achieved without sight, thus greatly enhancing the individual's outlook for vocational adjustment, his participation in community activities, and his ability to meet personal needs.
2. To demonstrate to school administrators and other public officials in the State of Maryland the value of mobility training in preparing blind persons to take advantage of other rehabilitation services.
3. To carry out the demonstration project by employing a qualified instructor who has graduated from either the Boston College or Western Michigan University peripatology programs or who has had at least five

years experience in teaching mobility in a recognized rehabilitation center for the blind.

4. To provide for the effective screening of clients who need mobility training and to assure that such training is given until the individual has reached maximum independence in travel or has proven that he cannot benefit from such training. Such screening will take into account the client's physical condition, his degree of vision, his motivation and other pertinent factors.

5. Priority will be given to blind high school students who will be candidates for other Vocational Rehabilitation services within a year or two, and to certain other Rehabilitation applicants for whom mobility is a problem and to whom Vocational Rehabilitation services cannot be extended because of their inability to travel.

METHODOLOGY

MODE OF OPERATION

The project was initiated in March of 1967 with one mobility instructor. Although it was planned to extend the project to the Baltimore area, this was not possible for a variety of reasons. From the outset the mobility instructor worked closely with the rehabilitation counselor for the blind in Prince George's and Montgomery Counties. They have occupied adjacent offices and have consulted almost daily regarding mobility trainees. Since July 1, 1969 the mobility instructor has also received referrals from another rehabilitation counselor for the blind now working in the area.

WORK WITH PUBLIC SCHOOLS

In the beginning, it was decided to work with school children from

the 7th grade on. All Junior and Senior High Schools in the area having legally blind students were contacted to acquaint them with the service. Contact was also made with the Hyattsville Elementary School which had a special resource room for blind students. Surveys were made in several schools to determine the feasibility of blind students learning to get to classrooms, to the cafeteria, and elsewhere without assistance. In most instances, it was found that bus transportation was provided by the county for blind and other handicapped students, although the youngsters were not always picked up at their home. A number of students entering Junior High School in the Fall of 1967 were given sufficient mobility to reach bus pick-up points and were oriented to the Junior High School buildings. Because of limited project funds, it was found necessary to register practically all mobility candidates for rehabilitation service in order to obtain the necessary medical information. However, in a number of cases, the schools were able to furnish ophthalmological data on their students.

OTHER REHABILITATION CLIENTS

In addition to contacts with the schools, the mobility instructor began immediately to work with other clients registered with Vocational Rehabilitation. As a matter of fact, requests for his services among clients beyond school age steadily increased throughout the project. It was originally anticipated that 50% of his time would be devoted to school cases but this ratio was achieved at only one point during the first year of the project. Also, during the course of the project both county school systems employed their own mobility instructors and the project instructor devoted only a small percentage of his time to school cases.

At the beginning an effort was made to set definite schedules for mobility instruction. However, it was found desirable to keep such schedules flexible. Preference had to be given to clients who were preparing to enter training or employment and who needed orientation and mobility. Often the instructor interrupted his work with persons receiving more intensive mobility training in order to serve such cases. Thus we were able to give immediate attention to persons needing some mobility technique or to those who merely needed orientation to bus routes for purposes of getting to training sites or to employment.

Since practically all candidates for mobility were registered for rehabilitation services, each case was reviewed and discussed with the rehabilitation counselor in the Suburban Washington District of the Division of Vocational Rehabilitation who also served as Project Supervisor. The usual general medical, ophthalmological and audiometric data were secured. In many cases the counselor had also obtained psychological evaluations or such information was available from school records. All such records were filed in the case folder retained by the counselor and were easily accessible to the mobility instructor. After the instructor had made his own evaluation of the client's suitability for mobility training, this was also made a part of the case record, together with periodic reports concerning progress of training. In his own evaluation of the needs and potential of a client for mobility training, the instructor considered other pertinent factors including the attitudes of the client and those about him, the family and social situation, the location of the client's residence and specific purposes for which mobility training was required. In view of the large number of cases

which were involved, it was helpful for the instructor to know the specific purposes for which the clients would be traveling. For example, in working with a homemaker he might give only enough instruction to enable her to get to the mail box or to the neighborhood shopping center. With a school case he might provide only enough instruction for the youngster to travel safely for only a few blocks to a bus pick-up point. In another case, he might work with the client enough so that he could travel into downtown Washington or across the city.

TRAINING

In general, the mobility instructor followed standard procedure beginning with indoor travel. The client was taught to move about comfortably in familiar surroundings, learning to take directions from stationary objects, to judge distances between objects, to negotiate stairways, etc. He was also taught how to walk with a sighted guide.

When training began outside the home, the instructor then concentrated on teaching the techniques or mechanics of using the cane properly. Methods of avoiding objects in the path of the traveler, of following shore lines, of crossing streets and requesting assistance were then emphasized as the client gained in proficiency with cane technique.

When indicated, experience was then given in the use of public transportation. Obviously in working with partially sighted individuals, the instructor varied the techniques and methods of travel to suit the client's needs.

RESULTS

TRAINEE CHARACTERISTICS

During the period of this project 99 persons were considered for mobility training. Each of these received some type of evaluation, although medical and other information was not obtained on several persons for whom mobility was not considered feasible after the initial survey. They were referred from several different sources, including Vocational Rehabilitation, schools, Columbia Lighthouse for the Blind, family and self-referral.

The characteristics of the group are as follows:

Sex: 59 male - 40 female

Age: 23 under 20 - 58 between 20 and 60 - 18 over 60

Visual Acuity: 47 totally blind - 52 with some residual vision.

Among the 99 persons considered for the project, 60 received some mobility instruction, although approximately one-third of the group received only brief instruction or orientation to travel routes. Of the approximately 40 who received intensive training, 24 have been successfully closed as rehabilitated and others are still involved in the rehabilitation process.

SCHOOL CASES

Of the 23 persons under 20, 17 were school referrals. On the average, more time was devoted to this type of case. Several of the school cases were worked with intermittently during the entire period of the project. It was found that practically all of the school trainees had bus transportation furnished by the county. Except in a few cases, no

attempt was made, therefore, to orient students to the use of public transportation. In only one instance was mobility given to a student who resided close enough to the school to make the trip on foot. Otherwise, work with school cases was confined to orientation and mobility in and about the school, or between home and bus stop. For the most part, students resisted carrying their canes when moving about the school building. While this was partly due to the encumbrance of books, it was felt that they were also concerned with acceptance by their peers.

In view of the fact that the school systems in both counties employed their own mobility instructors during the course of the project, it seems likely that their actions were prompted by the work of our mobility instructor. A graduate of the Boston College program was employed by Prince George's County in 1968 and a graduate of the Western Michigan program was employed by Montgomery County in June of 1969.

OTHER TRAINEES

In general, the work with persons beyond school age was of two types. First of all, there was the newly blinded individual or the person with no mobility skills who had to be started with basic training. Secondly, there were those who had received prior mobility instruction and who merely needed brush-up training to fit them for traveling to a training site or to employment. The knowledge of the mobility instructor was also helpful in allaying the fears of employers concerning the safety of prospective blind employees. On several occasions it was actually noted that the employer had little doubt concerning the ability of the client to perform the job, but he was noticeably concerned about the client's ability to get to the job and to get about the premises.

TYPES OF CANES

While a few Typhlocanes were utilized for clients at the outset of the project, the instructor soon settled on the fiberglass cane, which seemed to be just as adequate, and was more economical. A few golf shank canes were also utilized. After receiving some mobility training, many clients purchased folding canes for occasional travel.

SPECIAL PROBLEMS

It is interesting to note that mobility problems encountered in the setting of this project are quite different from those experienced in strictly urban areas. The bulk of the mobility instructor's work was confined to the fringes of the District of Columbia, extending to an average distance of approximately 10 miles from the District line. In these Maryland suburban areas, there are numerous bus lines running into downtown Washington. However, there is practically no cross-country public transportation. In the outer fringes of these areas, which are also heavily populated, there are often no sidewalks; thus there were few definite and safe shorelines to follow. While clients were taken to suitable areas for their instruction, they often had no opportunity to practice between lessons.

The lack of both public transportation and sidewalks were complicating factors in mobility instruction and therefore presented barriers in arranging training, employment and other rehabilitation services, even for the client who is mobile.

Although, at the time, no consideration was made of the dog guide as a possible solution to these problems, present plans are to review each case affected by these barriers to determine the feasibility of such means of travel.

It has already been noted that this project probably influenced the school systems in both counties in their decisions to employ mobility instructors for blind students. Also, it can be noted that the Maryland Division of Vocational Rehabilitation added special mobility positions to its program of services for the blind. Just prior to the writing of this report, the Maryland Agency began construction of a Comprehensive Vocational Rehabilitation Center which will have a unit for the blind with special orientation and mobility training as a part of the program.

TYPICAL CASE SUMMARIES

The following case summaries are presented as exaples of the work accomplished in this project. They reflect the work done with school cases as well as with older persons.

Miss K. was a totally blind ninth grade student in a public junior high school who required assistance in getting to school although she lived within easy walking distance. It was hoped that some orientation to the school approaches and the proper use of a cane would enable her to make the trip without assistance. Although she had never traveled alone outside of her home, she was able to master the basic mobility techniques. After several lessons she was able to reach the school unaided, negotiate the driveway approach to the entrance and find her classroom without assistance.

Miss G., a public high school senior, is congenitally blind due to retrolental fibroplasia. Apparently her RLF also involves some undefined but substantial central nervous system damage, since she has poor coordination, poor muscular memory, and poor orientation. As a

result, Miss G. has always been a poor traveler, and one who has always presented problems in orientation. She never traveled independently under any circumstances until entering high school. At that time she was given intensive orientation to the school building and provided with mobility instruction. Each year it has been necessary to repeat the orientation work, since she seems to have relatively poor retention, and her mobility has been limited by the plateau of skill she has reached and beyond which she has been unable to progress. Nevertheless, Miss G. is now able to get to classes independently and safely.

Mr. U. was a 24-year old Army veteran who lost his sight and suffered various other injuries in Vietnam. He had been to the rehabilitation center at Hines V. A. Hospital, but needed some refresher lessons with the cane and considerable orientation to the area. He was particularly interested in finding his way around the clinics at Walter Reed Hospital and the V. A. Hospital, learning to recognize his own residential street, and being oriented to the local shopping center. A series of six lessons, ranging up to two hours each, proved sufficient for his needs.

Miss D. was a totally blind young lady of 21, having lost her sight in an automobile accident. Although she resided in Baltimore, she was placed with the telephone company in Washington where she relocated for training as an intercept operator. Before this could be done she had to be thoroughly oriented to her job station, work route, residence, and the surrounding neighborhood. To do this, the instructor worked intensively with her for a week plus several follow-up sessions, after which she was able to get to and from work and was able to use a restaurant near her residence at times when her shift did not permit her

to take meals at her residence.

Mrs. W., a housewife in her early thirties, has a congenital condition which leaves her partially sighted and well within the legal definition of blindness. She functions well within her home and in any situation she is familiar with, but she never ventured out of her home and immediate neighborhood alone until she received mobility instruction. Starting with instruction within her home, she was taught basic cane techniques and then taken to various places in her neighborhood for further practice. After a series of sixteen lessons, she was able to walk to her local shopping area, a distance of several blocks with one or two rather difficult crossings. Although she is not inclined to make the shopping trip without her son or husband, her mobility program has served to increase her self-confidence and the ease with which she can travel a substantial distance in safety and independence, and it has been a key factor in the successful closing of her case by the Rehabilitation Counselor.

Mr. R., a 62 year old railroad vice president was almost totally blind as a result of diabetic retinopathy, complicated by glaucoma. He did not travel without a guide.

Although it was felt that Mr. R needed a period in a rehabilitation center, he was unable to take the time for this. He felt most insecure about his job, being greatly concerned that he could not work until age 65 and thus draw full retirement. After a dozen lessons, he was walking along residential sidewalks, making simple street crossings and handling stairways with confidence and skill. Largely because of the mobility training, Mr. R. regained sufficient confidence in mobility to return to his office and carry on with his job.